

CLAIMS

1. An articulated boom arm for a rock boring machine, said arm comprising a first kinked member having a drill guide at one end and a base pivot at the other, and a pair of pivoted links, one of said links having a first end pivoted at said base pivot, the other of said links having a drill pivotally mounted at a first end thereof, the second ends of said first and second links being pivoted to each other whereby said drill is reciprocally linearly movable along said first member with a drill bit aligned with said drill guide and at one extremity of the reciprocal movement both said pair of links are substantially longitudinally aligned and extend towards said drill guide and at the other extremity of the reciprocal movement both said pair of links are substantially longitudinally aligned and extend away from said drill guide.

2. An articulated boom arm as claimed in claim 1, wherein said pair of links can be manipulated between said extremities to provide multiple modes of operation, to provide a longer stroke for blast hole drilling and a shorter stroke for drilling and bolting.

3. An articulated boom arm as claimed in claims 1 or 2, wherein said arm is mounted on a seven axis manipulator assembly, said assembly comprising a turntable rotatable about a first substantially vertical axis, a first arm pivotally mounted to said turntable about a second, substantially horizontal axis, a second arm pivotally about a third, substantially horizontal axis, a yoke pivotally mounted to said second arm about a fourth, substantially horizontal axis and having a pair of arms defining a fifth axis about which a trunnion is pivoted, and a boom arm base support pivoted to said trunnion about a sixth axis substantially perpendicular to said fifth axis, said boom arm first member being rotatably mounted to said

base support about a seventh axis substantially perpendicular to said sixth axis.

- 5 4. An articulated boom arm as claimed in claim 1, wherein the second ends
of said first and second links are pivoted to each other by at least one
intermediate link.